# DEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII

In the Matter of the Application of				
PUBLIC UTILITIES COMMISSION	) DOCKET NO. 2	008-027	3	
Instituting a Proceeding to Investigate the Implementation of Feed-in Tariffs.	) ) ) )			
THE	OLADIALLIANGER	PUBLIC UTILITIES COMMISSION	2009 JAN 26 P 3: 54,	רבט
THES	OLAR ALLIANCE'S			
R	ESPONSES TO			
APPENDIX A	and C OF SCOPING PAPER			
	AND			

**CERTIFICATE OF SERVICE** 

RILEY SAITO 73-1294 Awakea Street Kailua-Kona, HI 96740 Telephone No.: (808) 895-0646

for The Solar Alliance

# **Appendix A: Cost Data Forms**

(Responses are due in 45 days.)

## Solar Alliance Response:

Solar Alliance ("SA") is an alliance of solar manufacturers, integrators, and financiers dedicated to accelerating the promise of photovoltaic ("PV") energy in Hawaii and nationwide. Accordingly because of anti-trust issues, it members cannot share pricing information.

Moreover, SA does not believe it is necessary to provide the requested data for the following reasons: (i) with respect to small systems and systems in which all electricity is used by the customer on an annualized basis, we support net metering (or customer choice), and thus provision of cost data for these projects is not needed and (ii) with respect to large systems and systems that are net exporters of electricity on an annualized basis, we support implementation of PBFiTs, in addition to retention of exemptions from the competitive bidding framework. Additionally, there is a paucity of large projects and we question the value of cost data from these "early adopter" systems in setting fair PBFiT rates.

We support instead the approach outlined below to establish initial PBFiT rates.

SA respectfully proposes that the Commission set PBFiT rates that are fair and designed to help move the market. At the present time and for the following rationale, SA proposes that PBFiTs be established for ONLY photovoltaics ('PV") and concentrating solar power ("CSP") systems:

- These technologies have high installed costs and therefore are examples of technologies suitable for PBFiTs;
- These technologies are well-known to HECO, who has worked closely with industry on interconnection requirements;
- 3. Developers are familiar with current permitting processes; and
- 4. PBFiTs, as part of universal or standard contracts, will help facilitate a more rapid financing, installation and operation of these technologies in Hawaii.
- 5. For other renewable technologies in the 500 kW to 5 MW range, we support retaining and expanding the project size range for exemption from the competitive bidding framework. Thus, renewable project developers should be eligible to negotiate prices for standard offer contracts from the utility.

Given the above, SA offers the following Table of proposed PBFIT rates for PV and CSP by island and size. Since the PV market is dynamic and costs and other factors are constantly changing, we are offering current ranges that we believe are fair and will help to move the market.

Table 1. a. Feed-In Tariff Proposal for PV and CSP

# (without state tax credits; with federal Investment tax credit)

Island	≤500 kW	500 kW - 5 MW	6 to 10 MW	11 to 20 MW
Oahu	33-37	28 to 32	25 to 29	22 to 26
Maui	35-39	30 to 34	27 to 31	25 to 29
Molokai	38-42	33 to 37		
Lanai	40-44	35 to 39		
Hawaii	37-41	32 to 36	29 to 33	27 to 31

# **Assumptions:**

- 1. Values are given as a range of cents/kWh
- 2. In both cases, the proposed tariff rates are shown without state tax credits.
- 3. Includes permitting and interconnection costs based on independent interconnection studies contracted by HECO.
- 4. Includes total installed cost with profits and warranty costs.
- 5. O&M is covered under a separate contract with the customer
- 6. SA is recommending that the Commission consider exempting solar projects up to 20 MWs from competitive bidding
- 7. Projects for FiTs assume that the customer is a net power producer. The quantity of projects on a given island would be limited on only by distribution circuit limits, initially at 30% of the line capacity and increased over time based on a collaborative study including HECO, NREL and industry

# Appendix C: Questions

The Commission should direct the parties to respond to the following questions. Please provide detailed responses including supporting calculations and assumptions, underlying reasoning, and supportive citations. Responses to the threshold legal issues are due within 30 days. Responses to all other questions are due in 45 days.

## Threshold Issues (Legal)

- 1. If the price associated with a feed-in tariff exceeds the utility's avoided cost, then by definition the utility's customers will incur higher costs than they would in the absence of the feed-in tariff. Please comment on the legal implications of this result. For example:
  - a) Is this result permissible under current Hawaii statutes?
  - b) Does HRS § 269-27.2 create a ceiling on the feed-in tariff price?
  - c) If so, how do the signatories to the Energy Agreement (or other parties to this proceeding) propose to demonstrate that each feed-in tariff price does not violate the statute?
- 2. As with any administrative agency decision, a Commission decision approving a feed-in tariff must be supported with substantial evidence.
  - a) Focusing on the price term, what evidence is legally necessary? Consider these options, among others:
    - i) evidence of actual costs to develop similar projects in Hawaii
    - ii) generic (i.e., non-Hawaii) evidence of costs associated with each particular technology
    - iii) evidence that the tariff price results in costs equal to or below the utility's avoided cost
  - b) By what process do the signatories (and other parties to this proceeding) propose to gather this evidence and present it the Commission, under the procedural schedule proposed by the signatories?
- 3. Assume the Commission does create feed-in tariffs, which entitle the seller to sell to the utility at the tariff price.
  - a) If the tariff price exceeds the utility's avoided cost, is there a violation of PURPA, provided the seller is relying on a state law right to sell rather than a PURPA right to sell?

- b) If the tariff price exceeds the utility's avoided cost (as calculated prior to the existence of the tariff), could a seller assert a PURPA right to a sale at the tariff price, on the grounds that the utility now has a new "avoided cost" equal to cost it would have incurred under the state-mandated feed-in tariff?
- c) If the price associated with a feed-in tariff is less than the utility's avoided cost, what benefit does the tariff offer the developer that is not already available under PURPA?
  - d) Please offer any other comments concerning the legal and practical relationship between the feed-in tariff and existing PURPA rights and obligations.

#### Other Threshold Issues

4. Feed-in tariffs, if approved by the Commission, would join an array of legislative and regulatory initiatives to boost production of renewables in Hawaii. Those initiatives include PURPA, the renewable portfolio standard, net metering and various distributed generation actions. Are there overlaps, redundancies, gaps among these multiple initiatives? What is the independent purpose of each of these, in relation to the others?

**Response:** Please note that because it is unclear from the question as to what is meant by "various distributed generation actions", this response does not address these initiatives.

PURPA, the renewable portfolio standard, net metering, and feed-in tariffs are distinct and independent initiatives which were designed and implemented to encourage the development of renewable energy and/or the efficient use of fossil fuels. These initiatives should be able to co-exist and compliment each other. Thus, Solar Alliance ("SA") would strongly object to any proposal that would attempt to eliminate and/or replace PURPA, the renewable portfolio standard, or net metering with feed-in tariffs.

#### Process and General Feed-in Tariff Issues

5. Please explain the criticality of completing the "best-design" phase of this investigation by March 2009 and having project-based FiTs in place by July 2009 as called for in the Agreement.

Response: Since SA was not a signatory to the Agreement it cannot explain the criticality of completing the "best-design" phase of this investigation by March 2009 and having the project-based FiTs in place by July 2009 as called for in the Agreement. SA will note, however, that the implementation of this proceeding has created uncertainty in the marketplace and has negatively affected the promotion of PV systems in Hawaii.

6. Please explain why project-based FiTs are superior to other methods that require a utility to purchase renewable electricity.

Response: Since this investigative docket has only recently begun and there are many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule, SA has yet to form an opinion as to how project based FiTs compare to other methods that require a utility to purchase renewable electricity. Thus, SA reserves its right to address this question at a later date in this proceeding.

However, it is SA's understanding to date, that if FiTs are implemented correctly, it offers the developer more certainty in regards to price, thus the developer can easily determine if the project makes economic sense. Also, the developer does not have to spend time negotiating with the public utility over the public utility's avoided costs. This certainty in turn would lead to reducing the time it takes to obtain a Power Purchase Agreement ("PPA") with the public utility and also reduce the cost of financing the renewable project. Also, since the Commission has already approved the feed-in tariff with input from the Consumer Advocate, it should also reduce the time to get the PPA approved by the Commission.

7. Please quantify the costs over avoided costs of an open-ended PBFiT program assuming the utility meets the RPS goals set forth in the Agreement.

**Response:** SA does not understand what is being asked for in this question. Perhaps, SA will be in a better position to respond once it has an opportunity to review and analyze the many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule. Thus, SA reserves its right to address this question at a later date in this proceeding.

However, SA will note that if the question being asked is whether it is a good idea to design a PBFiT program with payments over the conventional avoided cost of the utility, then the answer is "yes." In fact, that is why FiTs came into being. Specifically, where retail rates and wholesale rates are not sufficiently high to encourage retail and wholesale renewable applications respectively, FiTs create a set of market prices where goals for increase use of renewables can be met.

8. Please quantify the benefits of lowering oil imports, increasing energy security, and increasing both jobs and tax base for the state mentioned in the Agreement.

Response: SA as an alliance of solar manufacturers, integrators, and financiers dedicated to accelerating the promise of PV energy in Hawaii and nationwide is currently not in a position to quantify the benefits of lowering oil imports, increasing energy security and increasing both jobs and tax base for the state. Perhaps, SA will be in a better position to respond once it has an opportunity to review and analyze the many documents and information yet to be submitted in this proceeding in accordance with the Commission

ordered procedural schedule. Thus, SA reserves its right to address this question at a later date in this proceeding.

9. Is the goal to encourage as much use of renewable resources as possible as soon as possible, or is it to encourage the orderly introduction of renewable resources based upon cost effectiveness?

**Response:** The goal is a combination of the two, but the most important factors are fairness and customer choice.

10. How long a period should exist between mandatory Commission reviews of the PBFiTs?

**Response:** Since this investigative docket has only recently begun and there are many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule, SA has yet to form an opinion as to how long a period should exist between mandatory reviews of the PBFiTs. Thus, SA reserves its right to address this question at a later date in this proceeding.

# **PBFiT General Design Issues**

11. Do each of the technologies listed as a renewable resource in the RPS legislation require a PBFiT?

Response: Since this investigative docket has only recently begun and there are many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule, SA has yet to form an opinion as whether each of the technologies listed as a renewable resource in the RPS legislation require a PBFiT. Thus, SA reserves its right to address this question at a later date in this proceeding.

12. Should PBFiTs for certain technologies be established now while others are deferred?

**Response:** Yes. If PBFiTs are implemented, technologies that do not have a proven track record in Hawaii should not be eligible.

13. Should the Commission cap purchases under PBFiTs? If yes, what is the maximum amount? Should individual caps be set for each technology? What period should the cap cover? What is the measurement for the cap (e.g., dollars, percent of sales, kW, or kWh)?

**Response:** No caps should be implemented unless it would lead to the curtailment of existing IPP generators with contracts to provide power to the utility or lead to "real" system generation issues.

There will be "technical" limits based on the results of interconnection requirements studies ("IRS") for both wholesale and retail applications, and reasonable distribution circuit feeder penetration limits in retail applications. There does need to be discussion and agreement on the scope, cost and timeline for the IRSs.

14. What limitations exist for integrating renewable resources onto the grid? Should these limits affect the PBFIT design or caps, or are they just another cost that developers must consider?

**Response:** The HECO Companies currently has a limitation as to how much energy can be provided on each circuit. This limitation has negatively affected the deployment of PV in Hawaii.

#### Specific Tariff Design Issues

15. How long should the Commission set for the PBFiT's term of obligation? Should it be different for different technologies? Is there a common basis (e.g., a conservative estimate of expected useful life) for establishing the term of obligation? On what basis should a utility pay for electricity after the term expires?

Response: SA is okay with the HECO/CA proposal of a 20 year term for PV.

16. Should PBFiTs require the utility to purchase the project's gross or net output at the PBFIT price?

Response: Since this investigative docket has only recently begun and there are many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule, SA has yet to form an opinion on whether PBFiT should require the utility to purchase the project's gross or net output at the PBFiT price. Thus, SA reserves its right to address this question at a later date in this proceeding.

However, currently SA is inclined to favor customer choice.

17. How should the utility determine the price paid for renewable energy not covered by a PBFiT (e.g., purchases above the cap or beyond the term of obligation)?

Response: According to PURPA it should be paid avoided cost.

18. What inflation adjustment, if any, should the PBFiT include, using what base and indexes?

Response: A set 2-3%. It should not be adjusted per a base or index because that creates uncertainty.

19. What milestones (e.g., commercial operations) should the Commission set to determine eligibility for the PBFiT? Are Hawaii's RPS statute requirements an eligibility requirement? Should utility affiliates be eligible to receive the PBFiT price?

Response: As stated in SA's response to Appendix A, SA is proposing for the present time only photovoltaics ('PV") and concentrating solar power ("CSP") systems be eligible to receive the PBFiT price.

No, utility affiliates should not be eligible to receive the PBFiT price.

20. Please comment on the need for stepped tariffs based upon location, size, fuel mix, and output.

Response: Since this investigative docket has only recently begun and there are many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule, SA has yet to form an opinion on the need for stepped tariffs based upon location, size, fuel mix, and output. Thus, SA reserves its right to address this question at a later date in this proceeding.

21. Under what circumstances should the PBFiT price be time-differentiated?

Response: Since this investigative docket has only recently begun and there are many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule, SA has yet to form an opinion on whether the PBFiT price should be time-differentiated. Thus, SA reserves its right to address this question at a later date in this proceeding.

22. How highly leveraged (i.e., bearing how much debt compared to equity) are these projects?

**Response:** SA is unable to answer this question at this time because it does not know how the question is defining "these projects". .

23. Does a PBFiT create a financing environment through a reliable revenue stream from the ratepayer to the investor, allowing for greater leverage and thus lower cost financing than would be available under an avoided-cost tariff?

Response: Generally yes, but would depend on the rate of the PBFiT.

24.If the PBFiTs are to encourage early development of resources, does the reasonable return need to be set higher for these early tariffs? Are there reasons other than encouraging early development to set the profit margin higher, such as risks associated with early implementation? Is this true across all project classes?

Response: Since this investigative docket has only recently begun and there are many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule, SA has yet to form an opinion on the inquiries posed in this question. Thus, SA reserves its right to address this question at a later date in this proceeding.

25. Does the current "credit crunch" affect the financing costs, including expected profits by equity investors?

Response: Yes.

#### Related Issues

26.Please provide a quantitative analysis demonstrating the public interest aspect of the concept that 10% of the utility's purchases under the feed-in tariff PPA should be included in the utility's rate base through 2015. In addition to the overall prudence of the rate base recommendation, please address the 10% and 2015 date included in the Agreement.

**Response:** Since this investigative docket has only recently begun and there are many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule, SA is currently not in a position to respond to this question. Thus, SA reserves its right to address this question at a later date in this proceeding.

27. What is the appropriate rate of return for the PBFiT portion of rate base that consists of a mandated purchase with guaranteed recovery and no capital outlay?

Response: Since this investigative docket has only recently begun and there are many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule, SA is currently not in a position to respond to this question. Thus, SA reserves its right to address this question at a later date in this proceeding.

28. Are there preferable utility incentives, other than putting PBFiT revenues into the rate base, to encourage the development of renewable resources?

**Response:** Since this investigative docket has only recently begun and there are many documents and information yet to be submitted in this proceeding in accordance with the Commission ordered procedural schedule, SA is currently not in a position to respond to this question. Thus, SA reserves its right to address this question at a later date in this proceeding.

29. Should the PBFiT require developers to assign credits (e.g., investment tax credits, renewable energy credits, and carbon credits) earned from a project to the purchasing utility as a condition of receiving payments under the PBFiT? If not, how should these credits be included in the estimation of a typical project's cost?

Response: PBFiT should not require developers to assign credits to the utility as a condition of purchase. These credits are the property of the developer and as such should be under the complete control of the developer, including the ability of the utility to apply them for various regulatorially and/or statutorially mandated purposes.

Respectfully submitted.

DATED: Honolulu, Hawaii, 1/25

2009.

RILEY SAITO

for The Solar Alliance

### **CERTIFICATE OF SERVICE**

The foregoing Responses to Appendices A & C to Scoping Paper was served on the date of filing by hand delivery or electronically transmitted to each such Party.

CATHERINE P. AWAKUNI EXECUTIVE DIRECTOR DEPT OF COMMERCE & CONSUMER AFFAIRS DIVISION OF CONSUMER ADVOCACY P.O. Box 541 Honolulu, Hawaii 96809 2 Copies Via Hand Delivery

DEAN MATSUURA MANAGER REGULATORY AFFAIRS HAWAIIAN ELECTRIC COMPANY, INC. P.O. Box 2750 Honolulu, HI 96840-0001 Electronically transmitted

JAY IGNACIO PRESIDENT HAWAII ELECTRIC LIGHT COMPANY, INC. P. O. Box 1027 Hilo, HI 96721-1027 Electronically transmitted

EDWARD L. REINHARDT PRESIDENT MAUI ELECTRIC COMPANY, LTD. P. O. Box 398 Kahului, HI 96732 Electronically transmitted

THOMAS W. WILLIAMS, JR., ESQ.
PETER Y. KIKUTA, ESQ.
DAMON L. SCHMIDT, ESQ.
GOODSILL, ANDERSON QUINN & STIFEL
Alii Place, Suite 1800
1099 Alakea Street
Honolulu, Hawaii 96813

Electronically transmitted

ROD S. AOKI, ESQ. ALCANTAR & KAHL LLP 120 Montgomery Street Suite 2200 Electronically transmitted

San Francisco, CA 94104

MARK J. BENNETT, ESQ.
DEBORAH DAY EMERSON, ESQ.
GREGG J. KINKLEY, ESQ.
DEPARTMENT OF THE ATTORNEY GENERAL
425 Queen Street
Honolulu, Hawaii 96813
Counsel for DBEDT

Electronically transmitted

CARRIE K.S. OKINAGA, ESQ.
GORDON D. NELSON, ESQ.
DEPARTMENT OF THE CORPORATION COUNSEL
CITY AND COUNTY OF HONOLULU
530 South King Street, Room 110
Honolulu, Hawaii 96813

Electronically transmitted

LINCOLN S.T. ASHIDA, ESQ.
WILLIAM V. BRILHANTE JR., ESQ.
MICHAEL J. UDOVIC, ESQ.
DEPARTMENT OF THE CORPORATION COUNSEL
COUNTY OF HAWAII
101 Aupuni Street, Suite 325
Hilo, Hawaii 96720

Electronically transmitted

MR. HENRY Q CURTIS MS. KAT BRADY LIFE OF THE LAND 76 North King Street, Suite 203 Honolulu, Hawaii 96817 Electronically transmitted

MR. CARL FREEDMAN HAIKU DESIGN & ANALYSIS 4234 Hana Highway Haiku, Hawaii 96708 Electronically transmitted

MR. WARREN \$, BOLLMEIER II PRESIDENT HAWAII RENEWABLE ENERGY ALLIANCE 46-040 Konane Place, #3816 Kaneohe, Hawaii 96744 Electronically transmitted

DOUGLAS A. CODIGA, ESQ. SCHLACK ITO LOCKWOOD PIPER & ELKIND TOPA FINANCIAL CENTER 745 Fort Street, Suite 1500 Electronically transmitted

Honolulu, Hawaii 96813 Counsel for BLUE PLANET FOUNDATION

MR. MARK DUDA
PRESIDENT
HAWAII SOLAR ENERGY ASSOCIATION
P.O. Box 37070
Honolulu, Hawaii 96837

Electronically transmitted

JOEL K. MATSUNAGA HAWAII BIOENERGY, LLC 737 Bishop Street, Suite 1860 Pacific Guardian Center, Mauka Tower Honolulu, Hawaii 96813

Electronically transmitted

KENT D. MORIHARA, ESQ.
KRIS N. NAKAGAWA, ESQ.
SANDRA L. WILHIDE, ESQ.
MORIHARA LAU & FONG LLP
841 Bishop Street, Suite 400
Honolulu, Hawaii 96813
Counsel for HAWAII BIOENERGY, LLC
Counsel for MAUI LAND & PINEAPPLE COMPANY, INC.

Electronically transmitted

MR. THEODORE E. ROBERTS SEMPRA GENERATION 101 Ash Street, HQ 12 San Diego, California 92101 Electronically transmitted

MR. CLIFFORD SMITH MAUI LAND & PINEAPPLE COMPANY, INC. P.O. Box 187 Kahului, Hawaii 96733 Electronically transmitted

MR. ERIK KVAM CHIEF EXECUTIVE OFFICER ZERO EMISSIONS LEASING LLC 2800 Woodlawn Drive, Suite 131 Honolulu, Hawaii 96822

Electronically transmitted

JOHN N. REI SOPOGY INC. 2660 Waiwai Loop Honolulu, Hawaii 96819 Electronically transmitted

GERALD A. SUMIDA, ESQ.
TIM LUI-KWAN, ESQ.
NATHAN C. NELSON, ESQ.
CARLSMITH BALL LLP
ASB Tower, Suite 2200
1001 Bishop Street
Honolulu, Hawaii 96813
Counsel for HAWAII HOLDINGS, LLC,
dba FIRST WIND HAWAII

Electronically transmitted

MR. CHRIS MENTZEL CHIEF EXECUTIVE OFFICER CLEAN ENERGY MAUI LLC 619 Kupulau Drive Kihei, Hawaii 96753 Electronically transmitted .

MR. HARLAN Y. KIMURA, ESQ. CENTRAL PACIFIC PLAZA 220 South King Street, Suite 1660 Honolulu, Hawaii 96813 Counsel for TAWHIRI POWER LLC

Electronically transmitted

SANDRA-ANN Y.H. WONG, ESQ. Electronic ATTORNEY AT LAW, A LAW CORPORATION
1050 Bishop Street, #514
Honolulu, HI 96813
Counsel for ALEXANDER & BALDWIN, INC.,
Through its division, HAWAIIAN COMMERCIAL & SUGAR COMPANY

Electronically transmitted

DATED: Honolulu, Hawaii, Jun. 26 2009.

RILEY SAITO

for The Solar Alliance